interparietal fused to form a large shield; 1, 2 or 3 pairs of nuchals; 3rd upper labial under the eye. Ear opening almost invisible. Scales smooth, dorsals largest; a pair of enlarged preanals. Fore limb absent. Hind limb monodactyle, about as long as the adjacent scales. Tail as thick as the body but shorter. Grows to 4¾ in. (63 + 59 mm.).

Brownish white above with 2 rows of dark brown dots on the vertebral scales and a broad dark lateral band from the snout through the eye to the tip of the tail; lateral and ventrolateral scales dark-edged. Under surface pale, that of the tail dark-spotted.

Specimens in the Museum are from Carnarvon and Bernier I. in the north to the vicinity of Perth, Pinjarra and York.

(To be concluded with an account of the genus *Ablepharus*.)

EGERNIA BOS A NEW SKINK FROM THE SOUTH COAST OF WESTERN AUSTRALIA

By G. M. STORR, Zoology Department, University of Western Australia.

As implied by Mitchell (1950) in his review of the genus, an understanding has scarcely begun of the various smooth-scaled *Egernia* formerly lumped with *whitii* Lacépède. All south-western members of the species group were regarded by Mitchell as a geographic race of the south-eastern Australian *whitii*. That the situation is not so simple here became evident after the examination of recent collections from the south coast.

Two distinct populations, equally representative of *whitii*, were found occurring side by side at Cheyne Beach, 32 miles east of Albany. One of them was identical with *pulchra* Werner (1910), or at least agreed with his detailed description of the type from Torbay, 45 miles to the west. The other population, hitherto undescribed, is here named.

Egernia bos sp. nov.

Habit: Compared with *pulchra*, *bos* is a short, deep-bodied lizard with relatively shorter tail (1.3-1.5 times the head plus body; the ratio in *pulchra* is 1.6-1.8). The snout is short and steep in profile. Largest specimen 193 mm. (82 + 111).

Coloration: Generally similar to but paler than *pulchra*, from which it differs mainly in the nature of the two dorsal black streaks. In *bos* they usually begin broadly on the parietals and invariably enclose a *double* series of pale spots; whereas in *pulchra* the streaks usually begin narrowly on the nape, not attaining their full width before the shoulders and moreover enclose only a single series of pale spots (see Fig. 1). The chin and throat of *bos* is bluish grey, the sutures between shields darker; in *pulchra* the entire under-surface is white. The lower surfaces of the digits are pale in *bos*, dark in *pulchra*.

Scalation: The dorsal scales are smooth (they are weakly tri-

carinate in *pulchra*). The interparietal is as wide as or wider than the frontal (in *pulchra* it is consistently much narrower than the frontal). There are usually 8, sometimes 7, upper labials. (I have only seen 7 in *pulchra*.) Midbody scales number 40-44 (mostly 42 and 44), compared to 36-40 (mostly 36-38) in *pulchra*. The subdigital lamellae are divided, each semi-lamella being tuberculately keeled, and under the fourth toe number 20-24 (mostly 22 and 23); in *pulchra*, only the basal lamellae are divided, all are unkeeled, and they are more numerous (24-27). The ear aperture is narrow oblong in shape and almost obscured by the 3-5 (mostly 4) subequal lobules; it is much wider in *pulchra*, especially at the top, and is protected by only 3 lobules, decreasing in size downwards.

Material: The above description of *bos* is based on the following 23 specimens:—

Holotype. W.A. Museum no. R 10751 collected by B. Malcolm at Cheyne Beach in 1953.

Paratypes. W.A. Museum nos. R 10752-4 collected on same occasion as the holotype and 15 specimens in the Zoology Department, collected at Cheyne Beach in 1959 (8 by the Zoology Department Bald Island Expedition on May 25, and 7 by the writer on December 14).

Other material: 4 specimens in the Zoology Department collected by D. H. Edward and the writer on December 8, 1959; 2

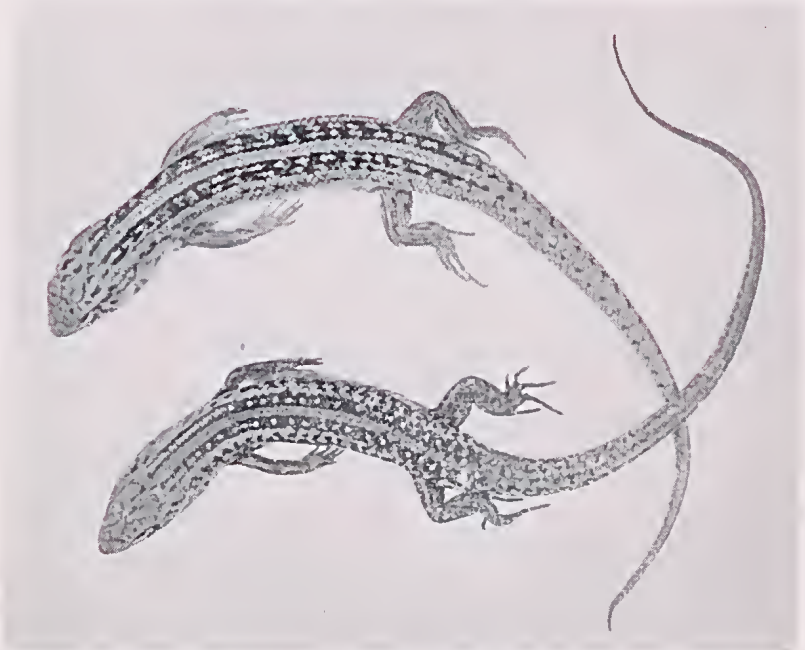

Fig. 1.—*Egernia bos* (at top) and *E. pulchra*, showing dorsal pattern.

were taken near Mt. Baring (20 miles north of Cape Arid) and 2 from 15 miles south-west of Israelite Bay.

Type locality: Cheyne Beach, Western Australia (34° 52′ S, 118° 23′ E).

Known distribution: South coast sandplains from Cheyne Beach is in the west to Israelite Bay in the east.

Ecology: Within this range *bos* occurs discontinuously, its habitat requirements being rather narrow. All the writer's specimens were taken from burrows in well-drained white sand free of laterite gravel. Most of the south coast sandplains overlie laterite, many others are waterlogged in winter, or the sand is mixed with large amounts of silt or organic matter. None of these situations are suitable for the species, but in the limited areas where they are present, their burrows are abundant.

The burrows slope gently downwards for 10-30 in. and often have more than one entrance. The lizards prefer to burrow into a vertical or nearly vertical surface, hence their concentration in road cuttings or the sides of wheel ruts in bush tracks.

In contrast *pulchra* is mostly found under stones and logs, though at Cheyne Beach two specimens were obtained from shallow burrows, partly in leaf litter, beneath shrubs growing round the base of a granite outcrop.

Some of the differences between the two species appear to be adaptations to their different ways of life. The relatively depressed head and body of *pulchra* recalls the contrast in form between rock-inhabiting species of *Amphibolurus* and those that live in the open or in burrows. The strong fore limbs of *bos* with their short thick digits seem well adapted for digging; and the narrow aperture, almost completely closed by lobules, doubtless prevents the outer ear from becoming clogged with sand.

Relationships: Most similar to *bos* are the poorly collected populations to the north of its range. A specimen in the W.A. Museum (R 2535) from Ongerup differs from *bos* only in minor details, e.g., low number of midbody scales (38), division of some rather than all subdigital lamellae, head uniformly pale grey rather than greyish brown blotched with black and the ear lobules and edge of eyelids greyish white rather than creamy white.

Two specimens (R 13118-9) from Bernier Island (Shark Bay) have undivided subdigital lamellae and differ slightly from *bos* in colour pattern. The pale vertebral streak is relatively wider and the black streaks narrower, and as their enclosed pale spots are large, there is dorsally much less black than in typical *bos*. This insular population does not burrow (Dr W. D. L. Ride, pers. comm.).

Of the described forms of the *whitii* group, *multiscutata* Mitchell and Behrndt (1949) is undoubtedly most like *bos*. The two agree in their smooth dorsals, high midbody scale count, broad interparietal and in having 8 upper labials. I have not seen specimens of *multiscutata*, but from its authors' description the two forms seem to differ mainly in the nature and number of subdigital lamellae. In *multiscutata* they are unicarinate, presumably

undivided, and more numerous (25-29). Each of the dorsal streaks in *multiscutata*, as in *pulchra* and *whitii*, encloses a single row of pale spots. In at least the type locality (Greenly Islands) *multiscutata* does not burrow.

On the other hand, *pulchra* shares exclusively with *whitii (sensu stricto)* the following characters: slender habit, long tail, narrow interparietal, fewer than 40 midbody scales, only 7 upper labials and dorsal scales either weakly tricarinate or tristriate. The known distribution of *pulchra* is from the vicinity of Collie (Werner) south and east to Cheyne Beach, i.e., the wettest and coolest part of Western Australia. Further research may show that *pulchra* and *whitii* are the western and eastern representatives of a Bassian species, and *bos* and *multiscutata* the western and eastern representatives of a closely related Eyrean species.

However, before any such scheme can be presented with confidence, many more specimens and biological data are required from critical areas, especially that part of South Australia where *multiscutata* and *whitii* make contact (if they still do so). Meanwhile it seems best to treat both *pulchra* and *bos* binomially; the one thing certain is that these two are not conspecific.

Nomenclature: Loveridge (1934) unfortunately applied the name *napoleonis* to *Egernia pulchra* Werner, with which it has nothing to do. The original description of *Tiliqua napoleonis* Gray (1839: 290) reads like the lizard referred to as *nitida* by Loveridge, *striolata nitida* by Mitchell (who incidentally overlooked the fact that *nitida* is an older name than *striolata*) and *carinata* by

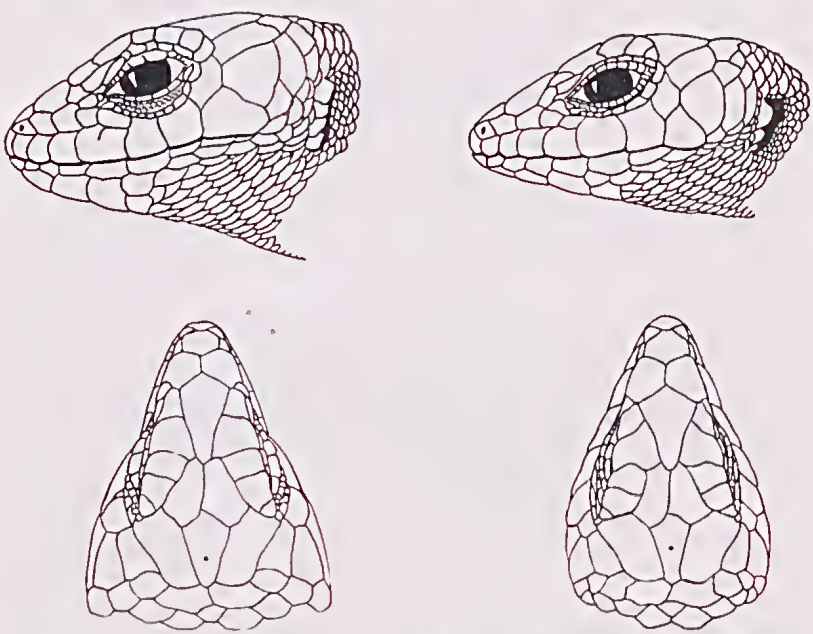

Fig. 2.—*Egernia bos* (at left) and *E. pulchra*, showing head shields. —Del. G. E. Binsted.

Glauert (1960). *Tiliqua leucopsis* Gray (1839: 291) could possibly be an older name for *pulchra*. However, I recommend the use of *pulchra* for this lizard; Werner's excellent description leaves no doubt as to the identity of the animal he is describing.

The population here named *bos* was lumped under *Egernia whitii* with those from further north in Glauert's recent account of the genus.

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ON THE TAXONOMIC STATUS OF THE SOUTH-WESTERN AUSTRALIAN CHESTNUT-SHOULDERED WRENS

By JULIAN FORD, Attadale

In a revision of the genus *Malurus*, G. Mack (1934) considered the three chestnut-shouldered wrens of South-Western Australia to be separate species even though the material available indicated that they were only geographical replacements of each other and should most probably be treated as subspecies. No evidence was available as to whether any distributional overlap and consequent possibility of hybridisation occurred. Mack's taxonomic treatment was largely followed by N. W. Cayley (1949). E. Mayr and D. L. Serventy (1944), in their summary of the number of bird species in Australia, lumped all the chestnut-shouldered wrens under the one species name. However, K. G. Buller's (1950) discovery that both *Malurus lamberti* and *pulcherrimus* occurred together at the mouth of the Murchison River stimulated Serventy (1951) to review the situation afresh. The outcome showed that